

## Investigating How Customers Act and Formulate Opinions About Homemade Green Products in the Context of an Emerging Economy

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### Abstract

Consumer demand for green products is constantly increasing. Previous research produced conflicting results in terms of preferences of consumers for local green products, particularly in emerging economies. To address the gap and provide insights into the role of demographic attributes in consumer attitudes towards domestic green products, representative quantitative research in the form of a survey was carried out involving 396 consumers. The results confirmed that consumers prefer green products and believe that they support the local economy by purchasing domestic green products. Environmental friendliness was also found to be a significant factor contributing to the preference for purchasing domestic green products. In the post-pandemic era, businesses can use green marketing to capitalize on the uniqueness of historical moments to influence consumers' environmental behavior. This study offers many potential benefits to marketers and policymakers by providing details insight into information about consumers' attitudes and behavior towards domestic green products.

**Keywords:** Consumer attitudes, green domestic products, green brands, local economy.

### Introduction

Consumer demand for green products is constantly increasing (Gilal et al., 2020; Uddin & Khan, 2018). On top of traditional decision-making factors such as brand or quality (Kang, Stein, Heo, & Lee, 2012), consumers are now also looking at the origin of products (Biswas & Roy, 2016). The importance of the country of origin has been studied intensely, revealing what factors are essential to consumers when assessing the origin of green products (Shao & Ünal, 2019). A study based on country pairs indicated that consumer evaluations in one country of products

made in another country are directly related to the GDP of the rated country and inversely to the GDP of the rating country (Yacob, Wong, & Khor, 2019). In some developing countries, e.g. in Pakistan, green products are not perceived favorably (Afridi, Jan, Ayaz, & Irfan, 2021a), and consumers prefer foreign labels from developed countries. Depending on the country and the product, sometimes, consumers can perceive certain countries of origin as attractive, neutral or unattractive (Wei, Ang, & Jancenelle, 2018).

The government recognizes the importance of green products and has consistently promoted high-quality local products, such as through the National Program for the Support of Green Agricultural Products and Groceries (Shao & Ünal, 2019). The data published by scholars and research agencies can be conflicting at times. According to certain sources, the volume of green products produced domestically is increasing (Wei et al., 2018). Others argue that other variables, such as the product's pricing, are more relevant than the fact that it was made locally. Customer preferences change over time, therefore gathering current data on consumer preferences for local green products is critical. Their opinions about local green products were investigated using a research model in the study reported in this paper. To environmental sustainability the green products are very important. Recent research shows that in post Covid-19 the factors that influence the consumer green purchase behavior is unclear (Afridi, Jan, Ayaz, & Irfan, 2021b). Therefore this study aim to investigate the consumer attitude towards local green product in the context of Pakistan.

## Background

### Consumer preferences for local green products

Previous research shows that consumers in some developed nations prefer locally created green items and are willing to pay a premium price for them (M. S. Khan, Saengon, Alganad, Chongcharoen, & Farrukh, 2020), according to previous research (Ramayah, Lee, & Mohamad, 2010). The extent of consumer ethnocentrism influences the desire to buy green products (Ahmad, Khan, Hussain, Khan, & Khan; Wei et al., 2018). When ethnocentric consumers consider purchasing green products, they experience a higher level of activation in brain regions connected to self-reference and reward, and green items deliver neurological gratifying experiences (Chen & Chai, 2010). Consumers have been shown to link green items from industrialized countries with higher quality (Y. Khan, Saqib, & Ahmad, 2016; Yacob et al., 2019). When a developed country's brand is made in a developing country, the quality is regarded to be lower (Chen & Chai, 2010; Y. Khan, Rehman, Shah, & Khan, 2018). Consumers would be more likely to buy a product if other quality qualities were disclosed to them, according to studies (Biswas & Roy, 2016; Kang et al., 2012; Mazar & Zhong, 2010).

As the distance between areas of production and consumption has risen, customers are becoming more concerned about the origins of the things they buy (Thakur & Aurora, 2015). Consumers have shifted their preferences toward internet meals, resulting in shorter travel distances. Many consumers are not just searching for environmentally friendly practices, but also prefer food that is produced locally within a certain location (Yu, Gao, & Zeng, 2014). In numerous research, the terms "country of origin," "region," and "distance" are frequently

employed to describe local food (Rezai, Teng, Mohamed, & Shamsudin, 2012). The perceived safety of local produce, the environmental friendliness of the production process and transportation, and the willingness to support the local economy and community were all highlighted as factors contributing to the preference for local produce (Panda et al., 2020; Yousaf Khan, Ahmad, & Malik, 2021). Consumers are willing to spend extra for local produce, according to studies (Y. Khan, 2022a; Wei et al., 2018).

### **Consumers and their attitudes towards local green products**

Green products are being purchased in greater numbers than ever before (Yacob et al., 2019). Many studies have proven the favorable association between consumer ethnocentrism and green product preference and rating (Biswas & Roy, 2016; Wang, Ma, & Bai, 2019; Wei et al., 2018). On the other side, it has been discovered that consumer ethnocentrism is relatively low in local Green products and that Green customers do not regard foreign products as a "threat." (Y. Khan, 2022b; Shao & Ünal, 2019). Another study found that product price is considerably more important to Green consumers than whether or not a product is created locally (Y. Khan, Ahmad, Awan, & e Ali, 2022; Xue et al., 2010). This is following a study conducted by (Tanner & Wölfling Kast, 2003), which found that Swiss customers are less ready to pay more for green local brands in general.

In the field of product recognition, the following concerns were discovered: Although consumers love green products, it might be difficult for them to recognize locally produced goods (Wei et al., 2018). Consumer choices are also influenced by demographics (Biswas & Roy, 2016; Hanif, Khan, Jamal, Gul, & Zeeshan, 2023), with young people paying more attention to brand origin since they favor foreign products (Shao & Ünal, 2019). Consumer preferences shift throughout time as a result of factors such as the present economic climate (M. S. Khan et al., 2020). Based on past research, we found research need in evaluating whether green customers pay attention to the origin of items they purchase and their attitude toward locally created products, as well as concerning their demographics, using available data. Based on the literature review and the previous research this study have established the following hypotheses:

**H1:** Consumers are paying attention to the origin of green products as purchasing green products is important to them.

**H2:** Consumers have noticed that green products are more expensive.

**H3:** When buying green products is important for consumers, they are willing to pay more for such products.

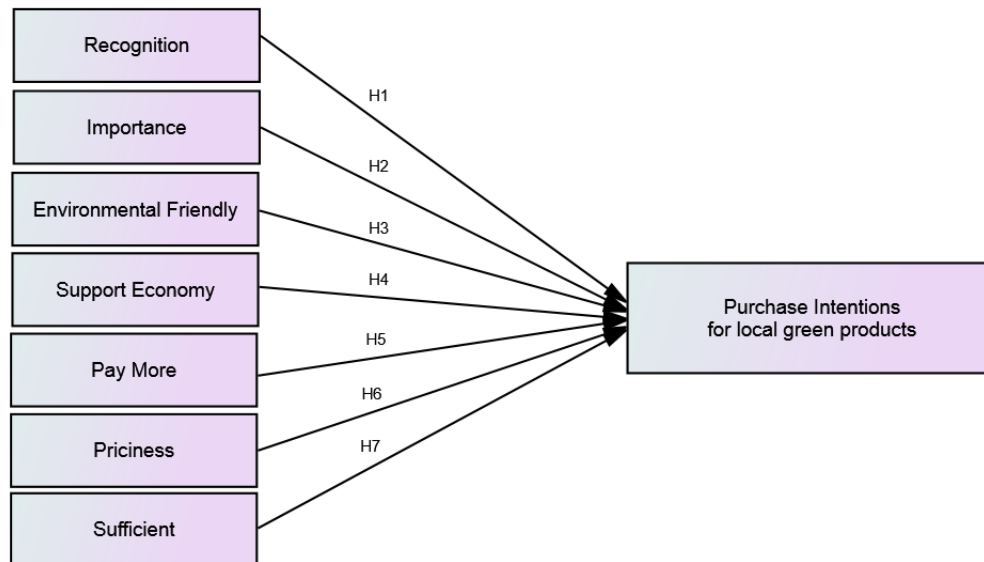
**H4:** Even though green products produced locally are more expensive, consumers are willing to pay the price.

**H5:** Environmental friendliness is a significant factor contributing to the importance of purchasing green products

**H6:** Supporting local businesses is a significant factor contributing to the importance of purchasing local green products.

**H7:** Green consumers who prefer the country of origin of purchased products think that the offer of Green products is sufficient.

Figure 1.



### Research methodology

The primary purpose of the research described in this paper was to examine customer attitudes regarding purchasing locally produced green goods. We wanted to figure out how they are related to local green products and whether they are essential to customers. In addition, the study looked into whether consumers are prepared to spend more on this type of goods and whether the options available to them are sufficient. To achieve this purpose, customers were surveyed and representative quantitative research was conducted. Descriptive statistics, notably frequency tables and Pearson's chi-square test of independence, were used to assess the findings.

### Participants and data collection

This study employed a survey methodology and a random sampling strategy to collect information from respondents using an online survey and questionnaires. The survey was conducted in December 2022 and involved 396 customers aged 20 and up. The responses were gathered online using a standardized questionnaire that included numerous statements about consumer views toward the topic under consideration. The research methodology and question phrasing were based on a prior study titled green brands and the customer. Respondents were asked to rate their level of agreement or disagreement with each statement using a 5-point Likert scale, which is commonly used to assess respondents' agreement with various claims

(Joshi, Kale, Chandel, & Pal, 2015). Respondents were given the following options to choose from 1) I firmly agree; 2) I partly agree; 3) I somewhat disagree; 4) I disagree, and v) I am unsure.

### *Instrument and Measures*

There were also categorization questions in the questionnaire that classified the respondents depending on their socio-demographic factors. All of the items in the survey were required, and respondents could only choose one of these options. The survey participants were chosen to represent a representative sample in terms of gender, age, education, residence size, and geography. Our study also sought to determine whether consumer attitudes toward purchasing green items differed based on their demographics. We wanted to see if there were statistically significant differences in consumer opinions based on gender, age, and education.

The following hypotheses were defined as null and alternative:

H<sub>0</sub>: There is no statistically significant relationship between demographic indicators and the opinions of consumers regarding the purchase of domestic green products.

H<sub>1</sub>: There is a statistically significant relationship between demographic indicators and the opinions of consumers regarding the purchase of domestic green products.

To evaluate the hypotheses, we employed Pearson's Chi-square test of independence with categorical variables. The null hypothesis assumes that two random variables are independent. The alternative hypothesis assumes that two random variables are inextricably linked. If the p-value is less than or equal to the significance level, the null hypothesis H<sub>0</sub> is rejected. The likelihood of obtaining a value of test statistics that is greater than or equal to the value obtained, assuming the null hypothesis is true, is referred to as the p-value.

All hypotheses were tested at a significance level of 0.05. Two conditions must be met in order to use the Chi-square test of independence (Y. Khan, Ahmad, & Awan, 2022; McHugh, 2013): 1) The individual observations summarized in the Table are independent, therefore each sample element is represented by just one Table cell; 2) At least 80% of the Table columns must have an expected frequency greater than 5; (Kent State University, 2020(Y. Khan, Shad, & Irfan, 2022)). When all hypotheses were tested, both assumptions were met. The first criterion is automatically satisfied by the fact that each respondent could only choose one answer to each question, and the questions were all required at the same time. The hypotheses were tested in SPSS at the end of each Chi-square table mentioned for each hypothesis, confirming the second assumption.

### **Findings**

The research focused on the attitudes of consumers towards purchasing local green products. The research results describe the relationship between respondents' attitudes to green products and selected demographic factors and describe the relationships in the research model.

Table 1 Testing the statements against socio-demographic parameters

Characteristics	Categories	Count	Per cent
Gender	Male	491	49.1%

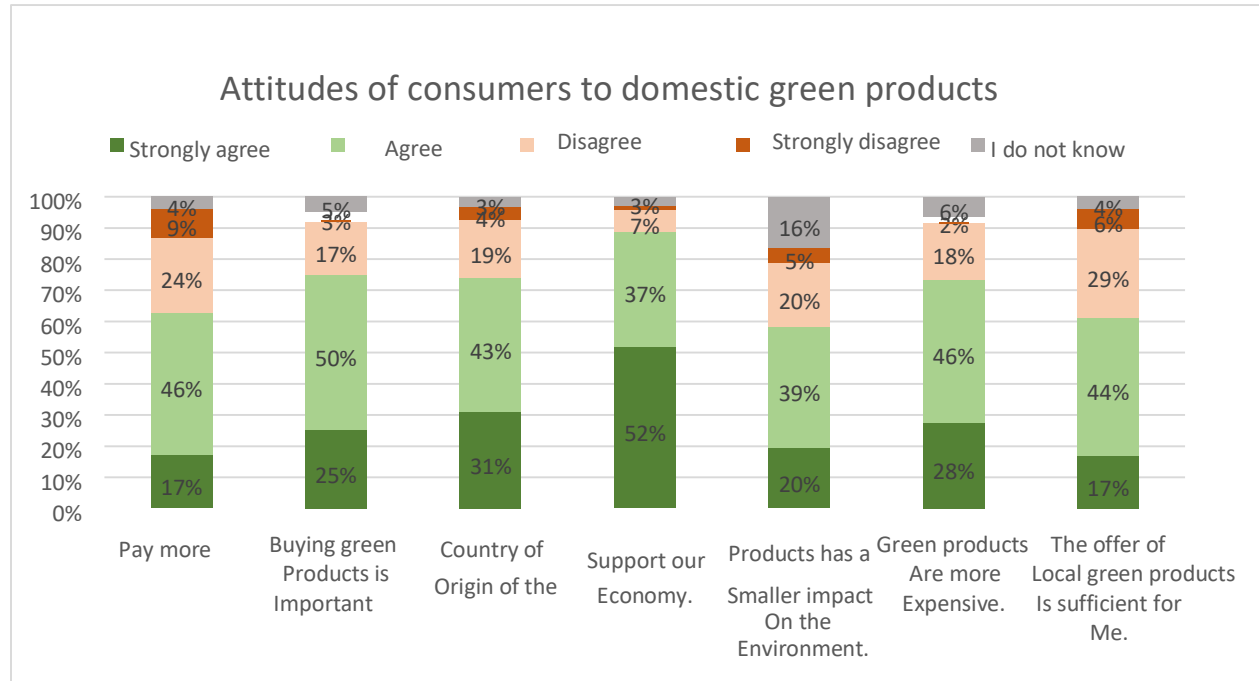
	Female	509	50.9%
Age	18 - 29 years	180	18%
	30 - 39 years	199	20%
	40 - 49 years	192	19%
	50 - 59 years	158	16%
	60 years and more	271	27%
Education	Up to 10 years of schooling	82	8%
	12 years of schooling	387	39%
	14 years of schooling	362	36%
	Higher education	169	17%
Income	Less than 10000 PKR	17	2%
	10001-20000 PKR	178	18%
	20001-40000 PKR	237	24%
	40001-60000 PKR	275	28%
	60001-100000 PKR	113	11%
	100001 PKR and more	106	11%
	I do not want to state	74	7%
Employment	Full time	399	39.9%
	Part-time	45	4.5%
	Maternity / parental leave	61	6.1%
	In household	12	1.2%
	Student, I work during my studies	33	3.3%
	Student, I do not work during my studies	41	4.1%
	Retiree	271	27.1%
	Entrepreneur / Self-employed person	69	6.9%
	Unemployed	69	6.9%

### Attitudes of Green consumers towards purchasing green products

Consumers' attitudes regarding purchasing environmentally friendly products are generally favorable. The purchasing of green products is significant to three-quarters of respondents (options "strongly agree" and "somewhat agree"), and just one percentage point fewer respondents believe they pay attention to the nation of origin of the items they buy. Almost a quarter of those polled believe the selection of green products is insufficient. Even though 74% of respondents believe green items are more expensive, over two-thirds of respondents (63%) are prepared to pay more for green products. When asked if they believe that buying green products helps the local economy, the biggest percentage of people said yes. Nearly 90% of those polled agreed with the assertion. On the other hand, we had the fewest favorable responses (less than 60%) on the question of whether purchasing green items has a smaller environmental impact. One intriguing conclusion in this question is that 16% of respondents are unsure or



unable to answer the question about the influence of buying green products on the local economy. Figure 2 depicts a summary of the responses.



**Research model evaluation**

We used Pearson's Chi-square test of independence to evaluate the hypotheses in the research model. Hypotheses with p-value below 0.05 were accepted at a significance level of  $\alpha=5\%$ . Table 3 shows that for all seven hypotheses, the p-value was lower than 0.001. The p-value for the association between green product recognition and importance was determined to be less than 0.001; thus, H1 is accepted: customers are paying attention to product origin since acquiring green items is essential to them. The results of this investigation revealed that there is a substantial (p0.001) association between recognition and price, therefore H2 is likewise acknowledged. Green products are more expensive, according to consumers who pay attention to the country of origin of items. A statistically significant association between the importance of acquiring green products and the willingness to pay a higher price was confirmed when the third hypothesis (H3) was tested with a p0.001 value.

In H4, the association between price and willingness was also shown to be significant based on the p-value. This indicates that, despite the greater cost, people are prepared to pay extra for environmentally friendly products. Confirmation of hypotheses H6 and H7 revealed that green consumers' perceptions of the importance of purchasing green items are influenced by their perceptions of environmental friendliness and local business support. The p-value0.001 link between recognition and sufficient offer is likewise significant, resulting in H7 acceptance. The influence of demographic parameters on the attitudes of Green consumers towards purchasing green products In the following section, we looked at the impact of socio-demographic factors on Green consumers' attitudes toward purchasing green products. We

wanted to see if age, gender, and education had a statistically significant impact on the responses of respondents. The p-values from Pearson's Chi-square test for the seven propositions are shown in Table 3. Based on the findings, we reject H0 and declare the relationship between the replies of respondents who stated their level of agreement or dissatisfaction with the product and the demographic factor to be statistically significant at the level of significance of 5%.

The most distinct responses were found in the responses of respondents with various levels of education. While respondents with a university degree are more inclined to pay a premium for green products (72 percent agree or somewhat agree), those with only a primary (37 percent) or apprenticeship (35 percent) education are more likely to reject the statement. There is a distinction between university-educated respondents and those with only a primary education when it comes to whether purchasing green items is important to them. Green product purchases are significant to 61 percent of respondents with primary education, while it is more than 20 percentage points important to university-educated respondents. When respondents were asked if they see the difference, the disparity was considerably greater. There was an even bigger difference when respondents were asked whether they notice the country of origin of the products they buy. As many as 83% of university-educated respondents notice the country of origin, with about three-quarters of high-school graduates and only 55% of those with primary education.

More than three-quarters of respondents agree with the statement that the purchase of green products supports the Green economy in each education group but the impact of green products on the Green economy is most recognized by university-educated respondents (94%). The fact that the purchase of Green products has a smaller impact on the economy is thought by 48% of respondents with primary education but on the other hand, 38% do not agree with the statement. In secondary education, a quarter of respondents disagree with the given statement, and among university-educated respondents, it is slightly more than a fifth. When we asked the respondents whether they offer of Green products was sufficient for them, we recorded the most positive answers among respondents with secondary education - 65% of respondents and vice versa. the offer seems the least sufficient to respondents with a university education.

Respondents from different age groups differed significantly in the statement about whether respondents pay attention to the country of origin of the products they purchase. While the oldest age category pays the most attention to the country of origin of the products. i.e. respondents aged 60 and over (86% of answers I definitely agree and I somewhat agree), in the youngest age group only 64% of respondents from 18-29 age pay attention to the country of origin. Similarly, when deciding whether the purchase of green products is important for respondents, the older age groups agreed the most - 82% of respondents in the age group of 50 to 59 years and the oldest age group of respondents over 60 years of age (there are only one percentage point less of answers I agree and I somewhat agree). Even though the youngest respondents represent a group for which the purchase of green products is least important (only 62%), they are the most critical age category for the supply of green products on the market. 42%



of respondents in the 18-29 age category consider it insufficient. On the contrary, the offer of Green products is sufficient for more than 70% of respondents in the productive age of 30-39 years. Details of the attitudes that significantly differ based on the age of consumers are presented in Appendix C.

The opinions of men and women statistically significantly differed only concerning whether the purchase of Green products has a smaller impact on the environment and whether they support the Green economy by purchasing green products. In both statements, women expressed a greater degree of agreement than men. As many as 9 out of 10 women surveyed agreed with the statement that the purchase of Green products supports the green economy (answers I definitely and somewhat agree with). Only 55% of men think that buying green products has a lower impact on the environment.

### Discussion and Conclusion

Green consumers are paying attention to the origin of products as purchasing Green products is important to them. This is in line with the previous research studies e.g. however, contrary to the findings, it is not younger consumers who are noticing the country of origin of products more than older consumers. Our research revealed that it is the older consumers aged 60 years and more who are paying attention to the product origin the most (86% answered definitely or somewhat agree). Our results are consistent with the study that found that consumers from developed countries prefer green products. Analysis of research data also showed that green consumers perceive green brands to be more expensive, but they are willing to pay a higher price for them. In developing countries, it represents a shift from the past when consumers were less willing to pay more for green brands. Before, the price was far more important to green consumers than the fact that the product was made locally.

Regarding the reasons why consumers prefer Green products, environmental friendliness is a significant factor contributing to the importance of purchasing Green products, in line with. Also, Green consumers believe that by purchasing green products they support the local economy. This has been identified as a factor contributing to the preference for local produce. Green consumers also believe that the offer of Green products is sufficient. This study contributes to theory by providing evidence of the current attitudes of consumers to locally produced brands and manufactured products. It builds on previous research and either confirms previous findings or reveals changes in preferences and importance of local products to consumers (e.g. the willingness to pay). Thanks to the representativeness of the research with a large research sample used, results reflect the preferences of the population, and differences between age groups, various levels of education, and gender could be analyzed. The results are practically usable by both Green and foreign companies and enhance their knowledge of how green consumers deal with product origin and thus can help improve business retailing strategies. They are valuable to government bodies, which are dealing with the support of locally manufactured products through various business support initiatives and communication campaigns. We see opportunities for further research in applying the same methodology for data collection and analysis in a different country. Which has always been the closes market in terms



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